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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,109	09/04/2001	James Arthur Smith	213267USOPCT	2383
22850	7590	11/25/2003	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			JUSKA, CHERYL ANN	
			ART UNIT	PAPER NUMBER

1771

DATE MAILED: 11/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/926,109

Applicant(s)

SMITH ET AL.

Examiner

Cheryl Juska

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 11-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed August 14, 2003, has been entered. Claims 1, 4, and 11 have been amended as requested. Claims 9 and 10 have been cancelled, while new claims 14-21 have been added. Thus, the pending claims are 1-8 and 11-21.
2. Said amendment is sufficient to withdraw the objection to claim 11, as set forth in section 1 of the last Office Action. Additionally, said amendment is sufficient to withdraw the 102 rejection of claims 1-3, 5, 7, and 8 over Perlinski as set forth in section 3 of the last Office Action and the 103 rejection of claims 4, 6, 11, and 12 over Perlinski, as set forth in sections 5-7. Specifically, Perlinski fails to teach the new claim limitation that the textile floor covering is a tufted carpet. However, a new 103 rejection is made below on said claims. Furthermore, applicant's arguments (Amendment, page 8, 2nd paragraph – page 9, 1st paragraph) with respect to the subject matter of cancelled claims 9 and 10, now included in claim 1, have been found persuasive. Hence, a 103 rejection over Perlinski is not made on the amended claims 1-8, 11, and 12.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 15 is indefinite because it is unclear what is meant by the phrase "wherein the tufted backing fabric comprises threads fixed thereto on a side thereof that bond to the secondary backing, with a binder comprising a styrene-butadiene copolymer." For the purposes of examination, said "threads" are taken to be backloops of the tufted face yarns and the latex adhesive composition is limited to comprising a styrene-butadiene copolymer as polymer B of claim 1.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3, 7, 8, 11, 12, and 14-17 are rejected under 35 USC 103(a) as being unpatentable over JP 58-152037 assigned to Sumitomo Chemical Co.

Sumitomo discloses a fireproof adhesive backing for carpeting comprising 40-95% of polymer A and 5-60% of polymer B (abstract). Polymer A is a copolymer of vinyl chloride and ethylene or a terpolymer of vinyl chloride, ethylene, and vinyl acetate. The weight ratio of the components of polymer A is 30-95% vinyl chloride, 5-70% ethylene, and 0-55% vinyl acetate.

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Polymer A may be modified with an acrylamide or acrylic acid. Polymer B is synthetic rubber latex such as a styrene-butadiene copolymer.

Thus, Sumitomo teaches the present claim limitation of a carpet having an adhesive backing of an aqueous dispersion of a mixture of polymer A, having 60-70% ethylene, and polymer B, having 100% mixture of a vinylaromatic (i.e., styrene) and a diene (i.e., butadiene). Sumitomo fails to explicitly teach that the carpet is a tufted carpet having a tufted primary backing a secondary backing adhered thereto by said adhesive. However, applicant is hereby given Official Notice that conventional carpets are predominantly comprised of a woven polypropylene primary backing which is tufted with face yarns, an adhesive latex backing, and a secondary backing of a woven polypropylene fabric. Hence, it would have been obvious to one skilled in the art to employ the adhesive carpet backing of Sumitomo in a conventional tufted carpet having polypropylene primary and secondary backing. Therefore, claims 1, 2, 14-17 are rejected as being obvious over the prior art.

Additionally, applicant is also hereby given Official Notice that the use of fillers, or lack thereof, are well known in the art of carpets. Specifically, fillers are a well known optional component of the latex backing. When added, it is well known that fillers may be present in an amount of up to 200 pbw based upon the weight of said latex. Thus, it would have been obvious to one skilled in the art to either omit a filler or to add a filler within the amount claimed. Therefore, claims 7 and 8 are rejected as being obvious over the cited art.

Furthermore, although Sumitomo does not explicitly teach the amount of adhesive applied, claim 11 is deemed obvious. Specifically, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges

involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Thus, one skilled in the art would readily be able to determine a suitable amount of adhesive in the range presently claimed. Therefore, claim 11 is rejected.

With respect to claim 3, it is noted that Sumitomo lacks a teaching to the amount of modifier (i.e., acrylic acid) present in polymer A. However, as argued in the previous paragraph, *In re Aller*, 105 USPQ 233 states that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. Thus, it would have been obvious to one skilled in the art to employ the acrylic acid modifier of Sumitomo in the amount presently claimed.

Claim 12 is also rejected since the most common method of bonding a secondary backing to a primary backing by adhesive latex is to coat the backside of the tufted primary backing with adhesive and then adhere the secondary backing thereto. Applicant is hereby given Official Notice of this fact. Thus, the process step of claim 12 would have been readily obvious to one skilled in the carpet art.

8. Claim 4 is rejected under 35 USC 103(a) as being unpatentable over the cited Sumitomo reference in view of US 6,162,848 issued to Lattime et al.

Sumitomo lacks a teaching that styrene butadiene rubber latex (SBR) is modified with an acid. However, said carboxylated SBR's are well known in the latex and carpet arts. For example, Lattime discloses a latex for a carpet backing comprising a carboxylated styrene-butadiene polymer containing 45-74.5 wt. % styrene, 25-50 wt. % butadiene, and 0.5-5 wt. % of an unsaturated carboxylic acid (col. 2, lines 50-55). Thus, it would have been obvious to one

skilled in the art to employ a carboxylated styrene butadiene latex for the latex disclosed by Sumitomo in order to provide enhanced bond strength of said latex.

9. Claims 5, 6, and 13 are rejected under 35 USC 103(a) as being unpatentable over the cited Sumitomo reference in view of US 5,851,625 issued to Smesny et al.

Claim 13 is rejected under 35 USC 103(a) as being unpatentable over the cited Perlinski reference in view of US 5,851,625 issued to Smesny et al.

Sumitomo and Perlinski fail to teach the use of a thickener in the respective inventive latexes. However, said use is well known in the latex and carpet arts. Thickeners are added to increase the viscosity so that said latex does not penetrate through to the face fibers of the tufted primary backing. For example, Smesny teaches conventional prior art carpet latexes includes a thickener which is typically polyacrylic acid (col. 7, lines 45-46). Thus, it would have been obvious to one skilled in the art to add a polyacrylic acid thickener in order to adjust the viscosity of the Sumitomo or Perlinski latex. Therefore, said claims are rejected over the respective prior art references.

10. Claims 18-21 are rejected under 35 USC 103(a) as being unpatentable over the cited Sumitomo reference in view of JP 58-041972 assigned to Sumitomo (Sumitomo '972).

Claims 18 and 19 limit the amount of ethylene polymer A to being 10% by weight, while claims 20 and 21 limit the amount to less than 10%. Sumitomo teaches polymer A to be present in an amount of 40-95%. However, it is known in the art to employ less. For example, Sumitomo '972 employs 10-90% of a like ethylene polymer blended with 10-90% of a like rubber latex (abstract). Thus, it would have been obvious to one skilled in the art to 10% of Sumitomo's ethylene polymer A, as is taught by Sumitomo '972. Additionally, it would have

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been obvious to one skilled in the art to employ less than 10% of polymer A. Specifically, determining the balance of polymer A and polymer B would be a matter of obtaining the desired properties of the overall latex based upon the amounts of said polymers and the properties that each polymer contributes. It has been held that discovering an optimum value of result a effective variables requires only routine skill in the art. *In re Boesch*, 205 USPQ 215.

Therefore, claims 18-21 are rejected as being obvious over the cited prior art.

11. Claim 21 is rejected under 35 USC 103(a) as being obvious over 5,403,884 issued to Perlinski.

Perlinski discloses the claimed invention with the exception that polymer A is less than 10% by weight. Perlinski teaches said amount ranges from 10-90% by weight. However, it is argued that it would have been obvious to one skilled in the art to employ less than 10% (i.e., 9%), since it has been held that discovering an optimum value of result a effective variables requires only routine skill in the art. *In re Boesch*, 205 USPQ 215. Specifically, determining the balance of polymer A and polymer B would be a matter of obtaining the desired properties of the overall latex based upon the amounts of said polymers and the properties that each polymer contributes. Therefore, claim 21 is rejected over the cited Perlinski reference.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the


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Examiner should be directed to Cheryl Juska whose telephone number is 703-305-4472. The Examiner can normally be reached on Monday-Friday 10am-6pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



CHERYL A. JUSKA
PRIMARY EXAMINER

cj
November 17, 2003